

SECTION B Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Engineering and Technical Support FFP - Contractor shall provide engineering and technical support for a study to characterization of Bi-Propellants Spray Ignition and Combustion Behavior in accordance with the attached statement of work.	1.00	Lot		

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STATEMENT OF WORK

1.0 GENERAL

1.1 Introduction

The Indian Head Division, Naval Surface Warfare Center, (IHD/NSWC) requires assistant with engineering and technical support for a study, entitled "**Characterization of Bi-Propellants Spray Ignition and Combustion Behavior**", to characterize the spray combustion behavior of the bi-propellants using PERSOL 1 [46% H₂O₂/ 48% Ammonium nitrate (AN)/ 6% Water] as the oxidizer-rich propellant and an Ethylammonium nitrate (EAN)-based gel propellant as the fuel-rich component.

1.2 Background

The fuel-rich propellant will consist of EAN, AN, H₂O, and boron powder. These two bi-propellants can be used in Reduced Toxicity, Non Hypergolic (RTNH) Liquid Propellant Systems for various military missions. The reason for adding energetic particles, such as boron, is due to the recent advances in nano-sized energetic material synthesis and gel propellant technology, which have provided new opportunities for introducing these ultra-fine energetic particles into liquid propellants. The specific impulse of the bi-propellants with inclusion of a certain percentage of energetic particles can be increased significantly from those without nano-sized energetic particles. The density specific impulse can also be enhanced, since these energetic particles usually have densities higher than those of liquid propellants.

1.3 Scope

This Statement of Work defines the tasks necessary to conduct two series of tests. The first series will demonstrate ignition of the bi-propellant spray and will include rocket engine test firings using an electric match for ignition, pilot flame initiated ignition. The second series will test the ability of achieving start-stop function and restart capability of the rocket engine based upon the concept of hot spots and glow plugs heated by combustion products of bi-propellants

There are four major anticipated results of the research project, including:

- (1) the development of a modified injector system for the spray combustion of RTNH gelled bi-propellants,
- (2) design and selection of a reliable ignition system for the atomized spray of bi-propellants,
- (3) study of ignition and combustion behavior of the bi-propellants, and

- (4) demonstration of the start-stop function and restart capability of the rocket engine powered by the above bi-propellants.

The data to be acquired from these series of tests can be used in many propulsion systems (for example, the development of new rocket propulsion systems for anti-missile applications, emergency fighter aircraft crew escape systems, satellite orbital control systems).

The contractor shall provide all the resources necessary to meet the requirements of the Statement of Work.

2.0 APPLICABLE DOCUMENTS

The following documents form a part of this Statement of Work (SOW) to the extent specified herein. In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be considered a superseding requirement.

Unless otherwise specified, the following documents form a part of this SOW and are to be used for *general guidelines only*.

DI-MISC-80508A

Technical Report Studies/Services

3.0 REQUIREMENTS

- 3.1 The contractor shall perform bipropellant engine tests utilizing remotely controlled propellant supply systems with accurate measurement of flow rates of each of the propellants. Reliable ignition sources have to be selected in order to achieve successful ignition of the bipropellant spray. The rocket engine will have several instrumentation ports for measurement of time history of chamber pressure during a test firing.
- 3.2 The contractor shall develop a modified injector system for generating atomized spray of bipropellants.
- 3.3 A high-temperature thermocouple probe will be installed in the downstream location of the rocket engine to determine the ignition status of the bipropellant spray. A video system will also be utilized to record the plume jet of the bipropellant products.
- 3.4 The contractor shall select an effective technique for examining the burnt status of the bipropellant during the test for start-stop function and restart capability of the rocket engine.
- 3.5 The contractor shall perform data reduction and analysis of the engine test and frequently update the results of finding.

4.0 GOVERNMENT FURNISHED PROPERTY

Unless specified by the government sponsors, no government furnished properties or materials will be needed to conduct this study.

5.0 DELIVERABLES

The contractor shall provide a *Technical Report* with the findings and analysis of all the data collected. A preliminary report is due 90 days after contract award, with a final report due at the end of the contract. This report shall be in accordance with CDRL Item A001 (DI-MISC-80508A).

6.0 TRAVEL

The Contractor may be required to travel in performance of this contract. Specific travel requirements shall be delineated in individual task orders and shall be in accordance with JFTR/FTR.

7.0 PERIOD OF PERFORMANCE

The period of performance shall be of 180 days after contract award.

8.0 DISCLAIMER STATEMENT

Any reports resulting from this contract shall contain the following disclaimer statement on the cover of such reports:

"The views, opinion and findings contained in this report are those of the author(s) and should not be construed as an official Department of Defense position, policy, or decision, unless so designated by other official documentation."

DELIVERY INFORMATION

CLINS	DELIVERY DATE	UNIT OF ISSUE	QUANTITY	FOB	SHIP TO ADDRESS
0001	180 days from date of award	Lot	1.00	Dest.	N00174 NAVSEA INDIAN HEAD <u>JOE MCCLURE / CODE 655M</u> 101 STRAUSS AVE. INDIAN HEAD MD 20640-5035

CLAUSES INCORPORATED BY REFERENCE:

252.204-7001	Commercial And Government Entity (CAGE) Code Reporting	AUG 1999
252.204-7004	Required Central Contractor Registration	NOV 2001

CLAUSES INCORPORATED BY FULL TEXT**52.213-4 TERMS AND CONDITIONS--SIMPLIFIED ACQUISITIONS (OTHER THAN COMMERCIAL ITEMS) (SEP 2002)**

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses that are incorporated by reference:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-3, Convict Labor (Aug 1996) (E.O. 11755).

(ii) 52.222-21, Prohibition of Segregated Facilities (Feb 1999) (E.O. 11246).

(iii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iv) 52.225-13, Restrictions on Certain Foreign Purchases (July 2000) (E.O.'s 12722, 12724, 13059, 13067, 13121, and 13129).

(v) 52.233-3, Protest After Award (Aug 1996) (31 U.S.C. 3553).

(2) Listed below are additional clauses that apply:

(i) 52.232-1, Payments (Apr 1984).

(ii) 52.232-8, Discounts for Prompt Payment (Feb 2002).

(iii) 52.232-11, Extras (Apr 1984).

(iv) 52.232-25, Prompt Payment (Feb 2002).

(v) 52.233-1, Disputes (Jul 2002).

(vi) 52.244-6, Subcontracts for Commercial Items and Commercial Components (Dec 2001).

(vii) 52.253-1, Computer Generated Forms (Jan 1991).

(b) The Contractor shall comply with the following FAR clauses, incorporated by reference, unless the circumstances do not apply:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (Sept 2002) (E.O. 13126). (Applies to contracts for supplies exceeding the micro-purchase threshold.)

(ii) 52.222-20, Walsh-Healey Public Contracts Act (Dec 1996) (41 U.S.C. 35-45) (Applies to supply contracts over \$10,000 in the United States, Puerto Rico, or the U.S. Virgin Islands).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212) (Applies to contracts of \$25,000 or more).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793). (Applies to contracts over \$10,000, unless the work is to be performed outside the United States by employees recruited outside the United States.) (For purposes of this clause, United States includes the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.)

(v) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212) (Applies to contracts of \$25,000 or more).

(vi) 52.222-41, Service Contract Act of 1965, As Amended (May 1989) (41 U.S.C. 351, et seq.) (Applies to service contracts over \$2,500 that are subject to the Service Contract Act and will be performed in the United States, District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, Johnston Island, Wake Island, or the outer continental shelf lands).

(vii) 52.223-5, Pollution Prevention and Right-to-Know Information (APR 1998) (E.O. 12856) (Applies to services performed on Federal facilities).

(viii) 52.225-1, Buy American Act--Supplies (May 2002) (41 U.S.C. 10a-10d) (Applies to contracts for supplies, and to contracts for services involving the furnishing of supplies, for use within the United States if the value of the supply contract or supply portion of a service contract exceeds the micro-purchase threshold and the acquisition--

(A) Is set aside for small business concerns; or

(B) Cannot be set aside for small business concerns (see 19.502-2), and does not exceed \$25,000.)

(ix) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (May 1999). (Applies when the payment will be made by electronic funds transfer (EFT) and the payment office uses the Central Contractor Registration (CCR) database as its source of EFT information.)

(x) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (May 1999). (Applies when the payment will be made by EFT and the payment office does not use the CCR database as its source of EFT information.)

(xi) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (June 2000) (46 U.S.C. 1241). (Applies to supplies transported by ocean vessels.)

(2) Listed below are additional clauses that may apply:

(i) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (JULY 1995) (Applies to contracts over \$25,000).

(ii) 52.211-17, Delivery of Excess Quantities (SEPT 1989) (Applies to fixed-price supplies).

(iii) 52.247-29, F.o.b. Origin (JUN 1988) (Applies to supplies if delivery is f.o.b. origin).

(iv) 52.247-34, F.o.b. Destination (NOV 1991) (Applies to supplies if delivery is f.o.b. destination).

(c) FAR 52.252-2, Clauses Incorporated by Reference (FEB 1998). This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

www.neco.navy.mil

(d) Inspection/Acceptance. The Contractor shall tender for acceptance only those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its postacceptance rights--

(1) Within a reasonable period of time after the defect was discovered or should have been discovered; and

(2) Before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(e) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence, such as acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(f) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges that the Contractor can demonstrate to the satisfaction of the Government, using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred that reasonably could have been avoided.

(g) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(h) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(End of clause)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is **541330** (insert NAICS code).

(2) The small business size standard is \$23M (insert size standard).

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it () is, () is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it () is, () is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it () is, () is not a service-disabled veteran-owned small business concern.

(6) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It () is, () is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:

() Black American.

() Hispanic American.

() Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

() Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

() Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

() Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997)

(a) "Hazardous material", as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None")	Identification No.
_____	_____
_____	_____
_____	_____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or

property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(End of clause)

252.223-7001 HAZARD WARNING LABELS (DEC 1991)

(a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:

(1) Federal Insecticide, Fungicide and Rodenticide Act;

(2) Federal Food, Drug and Cosmetics Act;

(3) Consumer Product Safety Act;

(4) Federal Hazardous Substances Act; or

(5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

MATERIAL (If None, Insert "None.")

ACT

(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material

Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

(End of clause)

252.223-7002 SAFETY PRECAUTIONS FOR AMMUNITION AND EXPLOSIVES (MAY 1994)

(a) Definition. "Ammunition and explosives," as used in this clause --

(1) Means liquid and solid propellants and explosives, pyrotechnics, incendiaries and smokes in the following forms:

(i) Bulk,

(ii) Ammunition;

(iii) Rockets;

(iv) Missiles;

(v) Warheads;

(vi) Devices; and

(vii) Components of (i) through (vi), except for wholly inert items.

(2) This definition does not include the following, unless the Contractor is using or incorporating these materials for initiation, propulsion, or detonation as an integral or component part of an explosive, an ammunition or explosive end item, or of a weapon system --

(i) Inert components containing no explosives, propellants, or pyrotechnics;

(ii) Flammable liquids;

(iii) Acids;

(iv) Powdered metals; or

(v) Oxidizers;

(vi) Other materials having fire or explosive characteristics.

(b) Safety requirements.

(1) The Contractor shall comply with the requirements of the DoD Contractors' Safety Manual for Ammunition and Explosives, DoD 4145.26-M hereafter referred to as "the manual", in effect on the date of the solicitation for this contract. The Contractor shall also comply with any other additional requirements included in the schedule of this contract.

(2) The Contractor shall allow the Government access to the Contractor's facilities, personnel, and safety program documentation. The Contractor shall allow authorized Government representatives to evaluate safety programs, implementation, and facilities.

(c) Noncompliance with the manual.

(1) If the Contracting Officer notifies the Contractor of any noncompliance with the manual or schedule provisions, the Contractor shall take immediate steps to correct the noncompliance. The Contractor is not entitled to reimbursement of costs incurred to correct noncompliances unless such reimbursement is specified elsewhere in the contract.

(2) The Contractor has 30 days from the date of notification by the Contracting Officer to correct the noncompliance and inform the Contracting Officer of the actions taken. The Contracting Officer may direct a different time period for the correction of noncompliances.

(3) If the Contractor refuses or fails to correct noncompliances within the time period specified by the Contracting Officer, the Government has the right to direct the Contractor to cease performance on all or part of this contract. The Contractor shall not resume performance until the Contracting Officer is satisfied that the corrective action was effective and the Contracting Officer so informs the Contractor.

(4) The Contracting Officer may remove Government personnel at any time the Contractor is in noncompliance with any safety requirement of this clause.

(5) If the direction to cease work or the removal of Government personnel results in increased costs to the Contractor, the Contractor shall not be entitled to an adjustment in the contract price or a change in the delivery or performance schedule unless the Contracting Officer later determines that the Contractor had in fact complied with the manual or schedule provisions. If the Contractor is entitled to an equitable adjustment, it shall be made in accordance with the Changes clause of this contract.

(d) Mishaps. If a mishap involving ammunition or explosives occurs, the Contractor shall --

(1) Notify the Contracting Officer immediately;

(2) Conduct an investigation in accordance with other provisions of this contract or as required by the Contracting Officer; and

(3) Submit a written report to the Contracting Officer.

(e) Contractor responsibility for safety. (1) Nothing in this clause, nor any Government action or failure to act in surveillance of this contract, shall relieve the Contractor of its responsibility for the safety of --

(i) The Contractor's personnel and property;

(ii) The Government's personnel and property; or

(iii) The general public.

(2) Nothing in this clause shall relieve the Contractor of its responsibility for complying with applicable Federal, State, and local laws, ordinances, codes, and regulations (including those requiring the obtaining of licenses and permits) in connection with the performance of this contract.

(f) Contractor responsibility for contract performance. (1) Neither the number or frequency of inspections performed by the Government, nor the degree of surveillance exercised by the Government, relieve the Contractor of its responsibility for contract performance.

(2) If the Government acts or fails to act in surveillance or enforcement of the safety requirements of this contract, this does not impose or add to any liability of the Government.

(g) Subcontractors. (1) The Contractor shall insert this clause, including this paragraph (g), in every subcontract that involves ammunition or explosives.

(i) The clause shall include a provision allowing authorized Government safety representatives to evaluate subcontractor safety programs, implementation, and facilities as the Government determines necessary.

(ii) Note: The Government Contracting Officer or authorized representative shall notify the prime Contractor of all findings concerning subcontractor safety and compliance with the manual. The Contracting Officer or authorized representative may furnish copies to the subcontractor. The Contractor in turn shall communicate directly with the subcontractor, substituting its name for references to "the Government". The Contractor and higher tier subcontractors shall also include provisions to allow direction to cease performance of the subcontract if a serious uncorrected or recurring safety deficiency potentially causes an imminent hazard to DoD personnel, property, or contract performance.

(2) The Contractor agrees to ensure that the subcontractor complies with all contract safety requirements. The Contractor will determine the best method for verifying the adequacy of the subcontractor's compliance.

(3) The Contractor shall ensure that the subcontractor understands and agrees to the Government's right to access to the subcontractor's facilities, personnel, and safety program documentation to perform safety surveys. The Government performs these safety surveys of subcontractor facilities solely to prevent the occurrence of any mishap which would endanger the safety of DoD personnel or otherwise adversely impact upon the Government's contractual interests.

(4) The Contractor shall notify the Contracting Officer or authorized representative before issuing any subcontract when it involves ammunition or explosives. If the proposed subcontract represents a change in the place of performance, the Contractor shall request approval for such change in accordance with the clause of this contract entitled "Change in Place of Performance - Ammunition and Explosives".

(End of clause)

252.223-7003 CHANGE IN PLACE OF PERFORMANCE - AMMUNITION AND EXPLOSIVES (DEC 1991)

(a) The Offeror shall identify, in the "Place of Performance" provision of this solicitation, the place of performance of all ammunition and explosives work covered by the Safety Precautions for Ammunition and Explosives clause of this solicitation. Failure to furnish this information with the offer may result in rejection of the offer.

(b) The Offeror agrees not to change the place of performance of any portion of the offer covered by the Safety Precautions for Ammunition and Explosives clause contained in this solicitation after the date set for receipt of offers without the written approval of the Contracting Officer. The Contracting Officer shall grant approval only if there is enough time for the Government to perform the necessary safety reviews on the new proposed place of performance.

(c) If a contract results from this offer, the Contractor agrees not to change any place of performance previously cited without the advance written approval of the Contracting Officer.

(End of clause)